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NOTES AND ILLUSTRATIONS OF QUEENSLAND FISHES, No. 3.

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(Plate XIV, fig. 1.)

A SMALL collection of fishes from Queensland waters has been submitted to me for examination by the Director of the Queensland Museum. Most of these were obtained by the trawler "Bar-ca-mul" during her investigations on the Queensland coast. They include several species not previously recognised from Australian waters.

FAMILY CLUPEIDÆ.

ILISHA HÆVENNI Bleeker.

Pellona hævenii Bleeker, Verh. Bat. Gen. xxiv, 1852, Haring. p. 21. *Id.* Weber and Beaufort, Fish. Indo-Aust. Arch. ii, 1913, p. 86, fig. 29.

Ilisha hævenii Bleeker, Atlas Ichth. vi, 1872, p. 117, pl. cclxix, fig. 2.

A specimen from Queensland, 163 mm. long, is the first of the genus to be recognised from Australian waters. It is similar to a smaller specimen from Amboyna, which was part of Dr. Bleeker's collection, but differs from his figure in having colourless fins and a dark ill-defined shoulder-spot.

Locality.—Between Cairns and Rockhampton, Queensland.

FAMILY MENIDÆ.

MENE MACULATA Bloch & Schneider.

Mene maculata (Bloch & Schneider) Valenciennes, Règne Anim. Illustr. Poiss., 1843, p. 139, pl. lxii, fig. 2. *Id.* Day, Fish India, 1876, p. 249, pl. 53, fig. 5.

Two specimens, 163 and 172 mm. long, were trawled between Cairns and Rockhampton, Queensland. This monotypic family has not been previously recognised from Australian waters.*

*Editor's Note.—Day's figure of *Mene maculata* has been reproduced from "Fishes of India," pl. 53, to illustrate this new Australian record (Plate xiv, fig. 2).

FAMILY SPARIDÆ.

GENUS ARGYROPS Swainson.

Argyrops Swainson, Nat. Hist. Class. Fish. &c., ii, 1839, p. 221 (*spinifer*).

The similarity of *Argyrops* and *Pagrosomus* Gill has been noted by Jordan and Thompson (Proc. U.S. Nat. Mus. xli, 1912, p. 575). Having compared the genotypes of both genera, I find that they can only be separated by the following characters:—

- a. Two rows of large teeth on each side of the upper jaw, and an inner row of much smaller ones.
- b. Dorsal spines filamentous: depth of the body greater than half its length to the hypural joint *Argyrops*
- bb. Dorsal spines not produced: depth of the body less than half its length to the hypural joint *Pagrosomus*.

ARGYROPS SPINIFER Forskal.

Sparus spinifer Forskal, Descr. Anim., 1775, p. 32. *Id.* Bleeker, Atlas Ichth. viii, 1877, p. 109, pl. 213, fig. 3.

Pagrus spinifer Day, Fish. India, 1875, p. 138, pl. xxxiii, fig. 5. *Id.* Kent, Gt. Barrier Reef, 1893, pp. 285 and 369, pl. xlv, fig. 2.

A specimen, 144 mm. long to the hypural joint, forwarded for identification by the Director of the Queensland Museum, differs from a smaller Indian example only in minor details. The second to the sixth dorsal spines are filamentous, the former reaching well beyond the hypural joint. Its general colour appears to have been pink with somewhat darker crossbars.

Locality.—The species has been recorded from Port Denison by Kent. This specimen was secured at Peel Island, Moreton Bay, Queensland.

FAMILY CHÆTODONTIDÆ.

HOLACANTHUS, CHÆTODONTOPLUS, CONSPICILLATUS Waite.

Holacanthus conspicillatus Waite, Rec. Austr. Mus. iii, 7, 1900, p. 203, pl. xxxv.

Ogilby's record of *H. conspicillatus* from Queensland (Mem. Qld. Mus. iii, 1915, p. 114) was based upon specimens properly referable to *H. personifer* McCulloch. He regarded the two as synonymous, but a comparison of five specimens of *personifer* with three of *conspicillatus* shows no intermediate forms, although the former varies considerably in its colour-marking.

A fine example, 205 mm. long, agrees in all details with Waite's types from Lord Howe Island. It was obtained near the Capricorn Group, Queensland.

FAMILY HEPATIDÆ.

ZANCLUS CANESCENS Linné.

Zanclus canescens and *Z. cornutus* (Linn) Bleeker, Atlas Ichth. ix, 1878, pp. 77-78, pl. 366, figs. 1-3.

Zanclus cornutus Macleay, Proc. Linn. Soc. N. S. Wales v, 1881, p. 548. *Id.* Stead, Proc. Linn. Soc. N. S. Wales xxxiv, 1909, p. 274.

Localities.—This widely distributed species was included in Macleay's Catalogue of Australian Fishes on the strength of an old collection specimen supposed to have been collected in Australian waters. A straggler from warmer waters was later recorded from Botany Bay, New South Wales, by Stead. A fine specimen 168 mm. long, which agrees with Bleeker's fig. 2, is in the Queensland Museum collection from near the Capricorn group, Queensland.

HEPATUS OLIVACEUS Bloch & Schneider.

Acanthurus epardi Lesson, Voy. Coquille, Zool. ii, 1830, p. 147, pl. xxvii, fig. 1.

Hepatus olivaceus (Bl. Schn.) Jordan and Evermann, Bull. U.S. Fish Comm. xxiii, i, 1905, p. 385, fig. 166.

A large specimen, 249 mm. long to the end of the middle caudal rays, agrees generally with Lesson's figure. The light shoulder-stripe extends backward to below the second dorsal ray, and is broadly margined with black.

This species has not been previously recognised from Australian waters. The specimen was obtained near the Capricorn Group, Queensland.

FAMILY CIRRHITIDÆ.

CIRRHITICHTHYS POLYACTIS Bleeker.

Cirrhitichthys polyactis Bleeker, Verh. Akad. Amsterdam xv, 1875, p. 16, and Atlas Ichth. viii, 1877, p. 147, pl. cccliv, fig. 1. *Id.* Weber, Siboga Exped. Fische, lvii, 1913, p. 259.

D. x/17; A. iii/6; P. viii/6; V. i/5; C. 15. L. lat. 50; L. tr. $4\frac{1}{2}$ -10. Depth (31 mm.) 2·6 in the length to the hypural joint (83): head (24) 3·4 in the same. Eye (7·5) 3·2 in the head; snout (5) 1·5, interorbital width (5·5) 1·3 in the eye.

Cheek-scales large, in $3\frac{1}{2}$ rows. Lips broad, maxillary curved, reaching backward to below anterior fourth of eye. Anterior nostril with a fimbriate appendage. Preoperculum strongly denticulated, the teeth largest above the rounded angle. A small canine on each side of the premaxillaries anteriorly, and an outer row of stronger teeth, followed by a band of villiform teeth which is widest near the symphysis. Mandible with a strong canine on each side, followed by a row of conical teeth; a band of villiform teeth between the canines. A curved band of minute teeth on the vomer, and a very small band on the anterior portion of each palatine.

Scales large, cycloid, and extending onto the bases of the vertical fins. Lateral line almost straight, forming an oblique line from the shoulder to the base of the caudal fin. Dorsal spines strong, each with a free membranous filament; the second is a little longer than the last, but is shorter than the anterior dorsal rays. First dorsal ray filamentous, the others decreasing slightly in length backwards; the base of the soft dorsal fin is a trifle longer than that of the spinous portion. Second anal spine longer than the third. Simple pectoral rays abruptly longer than the branched ones, the longest reaching backward to above the third anal spine. Caudal emarginate with the outer lobes produced into filaments.

Colour.—Uniformly light-coloured after preservation, with the upper half of the spinous dorsal dark grey; the anal also is somewhat dusky.

A single specimen, 99 mm. long to the end of the median caudal rays, is probably referable to *C. polyactis*. It differs from Bleeker's figure principally in being rather more slender posteriorly.

Locality.—Near the Capricorn Group, Queensland.

FAMILY BOTHIDÆ.

PLATOPHRYS PANTHERINUS Ruppell.

Platophrys pantherinus (Ruppell) Bleeker, Atlas Ichth. vi, 1870, p. 11, pl. cexxxiii, fig. 3. *Id.* Ogilby, Mem. Qld. Mus. ii, 1913, p. 90.

Variation.—A series of seven specimens, 38-198 mm. long, which I collected at Murray Island, exhibits considerable variation. Of the two largest specimens, which are of almost equal length, one has the elongated pectoral rays figured by Bleeker, and the orbital margins and snout are provided with several spiniform rugosities. In the other the pectoral is short and the spines are wanting.

Localities.—This species has been recorded from Darnley Island, Torres Strait, by Ogilby. Australian specimens are in the Australian Museum from Murray Island, Torres Strait, and from near Cape Flattery, North Queensland. Others are in the collection from Lord Howe Island, Funafuti, Pleasant Island, and India.

PLATOPHRYS POLYOPHTHALMUS Bleeker.

Platophrys polyopthalmus Bleeker, Ned. Tijl. Dierk. iii, 1866, p. 46, and Atlas Ichth. vi, 1870, p. 12, pl. cexxxiv, fig. 3.

A specimen, 137 mm. long, differs from Bleeker's description and figure only in having the rostro-frontal border a little more convex. The elongate pectoral ray reaches nearly to the end of the dorsal, and there is a bony tubercle on the anterior part of the snout and one on the anterior margin of the lower orbit; both these characters are variable in *P. pantherinus*, so evidently have no value as specific characters. In all other details the specimen is as described and figured by Bleeker.

Locality.—Between Cairns and Rockhampton, Queensland. The species has not been previously recognised from Australian waters.

FAMILY TETRAODONTIDÆ.

CANTHIGASTER Swainson.

Key to the Australian species:—

a. Body without longitudinal stripes; caudal fin almost or quite plain.

b. Body with four dark cross-bands.

c. Anterior cross-band behind the eyes; predorsal band nearly vertical .. *valentini*.

cc. Anterior cross-band between hinder portion of eyes; predorsal band markedly oblique *cinctus*.

